

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 3-7, 9-14, 16-18, and 20-23 are pending. Claims 2, 8, 15, and 19 have been canceled without prejudice. Claims 1, 11, 14, 18, 22, and 23 have been presently amended.

In the Official Action, Claims 1, 5-7, 10-17, and 18-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto et al (U.S. Patent No. 6,647,125) in view of Nakajima (U.S. Patent No. 6,650,437).

Claim Summary: Claim 1 as amended is directed to an image processing apparatus which includes:

- a communication unit configured to exchange data with an external device;
- an attribute determination unit that determines an image attribute of a first image signal on a pixel by pixel basis to generate a dot identification signal and a black-character identification signal;
- an embedding unit that embeds the black-character identification signal of the first image signal in a predetermined format to obtain a second image signal;
- a storage unit that stores the second image signal including the dot identification signal,
- wherein the second image signal is transmitted to the external device through the communication unit and *the dot identification signal is deleted*;
- an extractor that extracts the black-character identification signal from the second image signal; and
- an image processor that performs predetermined image processing on the second image signal stored, based on the dot identification signal *stored* and black-character identification signal *extracted*.

[Emphasis Added.]

Support for the clarifications is found in Applicants' specification at page 12, line 21, to page 13, line 4. Similar changes have been made to the other independent claims.

REASONS FOR ALLOWANCE

The outstanding Office Action asserts that a combination of Matsumoto et al and Nakajima meets all the claim elements. On page 4 of the Office Action, the Examiner associates the teachings in Matsumoto et al at col. 5 (regarding representing a signal color tile by a data format representing the color of the entire tile instead of memorizing individual pixel values) with the previously claimed black-character identification signal.

Yet, as clarified, Applicants' dot identification signal is deleted and image processing is performed on the second image signal stored, based on the dot identification signal stored and black-character identification signal extracted. These features are not in the applied art.

Furthermore, although the examiner has not identified exactly which part of Matsumoto et al's "attribute information" is considered to be dot identification, deleting the dot identification signal from Matsumoto et al's image file would seem to render Matsumoto et al unsatisfactory for its intended purpose. Under M.P.E.P. § 2143.01 V, this is an indicia of non-obviousness.

Moreover, modification of the image processor in Nakajima et al in order to arrive at an extractor that extracts the black-character identification signal from the second image signal would likely render the image processor in Nakajima et al unsuitable for its intended purpose. For instance, the Office Action characterizes a part of the image processing means in Nakajima et al as including an extractor:

Nakajima '437 discloses an extractor that extracts the black-character identification signal from the second image signal ("...*setting means for setting an output device which is to carry out image output processing on the image data; image processing means for carrying out image processing, which corresponds to the attributes of the image data and to the output device which is to carry out image output processing ...*" column 2, lines 29-34).

Yet, as shown in Figure.2 of Nakajima et al, the data from scanner 30 is input to image data exchanger 14 where it is converted by image processing device 32 using a

number of pixel density conversion schemes so that compressed data (i.e., a second image signal) is then provided to an output device by way of image memory 60 . Indeed, Figure 2 of Nakajima et al shows in box 52 a number of conversion schemes used by the image processing engine in Nakajima et al before the image data is passed to image memory 60.

Accordingly, for any extractor in Nakajima et al to extract a black-character identification signal from the second image signal (as claimed), such an extractor would have to process the encoded image data held in memory 60. As such, it is not clear if extraction of the processed image data (and hence processed black-character identification signal) would provide a true measure of the black-character identification signal. Alternatively, the image processing engine 52 in Nakajima et al could be modified to where the image processing engine 52 did not compress the black character identification signal or otherwise preserved the black character identification signal somewhere in the stored image signal. However, such a modification would likely render the stored image data in image memory 60 of Nakajima et al unsuitable for its intended purpose of providing image data for directly printing – – that is the modified stored image date (as compared to image data that would have been originally presented to the laser driver 64) would appear to the laser driver to be corrupted image data.

Once again, under M.P.E.P. § 2143.01 V, this is also an indicia of non-obviousness.

Accordingly, all these reasons, independent Claims 1, 14, and 18 (and the claims dependent therefrom) are believed to patentably define over the art of record.

Obviousness must be more probable than not

Finally, the examiner's attention is directed to M.P.E.P. 2142 which indicates that, with regard to rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the reference teachings establish a *prima facie* case of obviousness) is more probable than not. Applicant submits that based on the arguments presented here a *prima facie* case of obviousness is *not* more probable than not given

- 1) the deficiencies in the applied art, and
- 2) the above discussed modifications that would be needed to Matsumoto et al's image file or the image processors in Nakajima et al, both of which would render these devices unsatisfactory for their intended purpose.

Should the examiner find differently, Applicants request that the Office's findings and conclusions be clearly communicated so that Applicants can decide if further clarifications of their invention or if an appeal is in order.

Conclusion, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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